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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,502	03/11/2004	Yi-Hui Chang	1176/220	8274
26588	7590	07/12/2005	EXAMINER	
LIU & LIU 444 S. FLOWER STREET SUITE 1750 LOS ANGELES, CA 90071			CHOWDHURY, TARIFUR RASHID	
			ART UNIT	PAPER NUMBER

2871

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,502

Applicant(s)

CHANG, YI-HUI

Examiner

Tarifur R. Chowdhury

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Chu

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 18, 20, 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Taniguchi et al., (Taniguchi), JP 11-052370.**

4. Hitoshi discloses and shows in Figs. 15A-15C, a light guide plate, comprising:
a first surface and a second surface parallel to the first surface, wherein the first surface has a plurality of convex structures, and a arc- shaped recess is formed therein.

Accordingly, claims 18 and 20 are anticipated.

As to claim 24, Taniguchi also shows in Fig. 2 that the light guide plate (2) further comprising:

- a diffusion film (3) disposed on the first surface of the light guide plate.

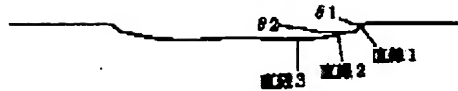
As to claim 25, Taniguchi also discloses that the material of the light guide plate is selected from polycarbonate resin.

【図15】

図15



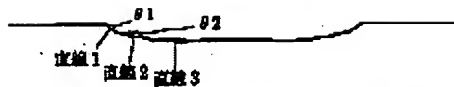
(A) 小凸部凹形状例10



(B) 小凸部凹形状例10の近似直線



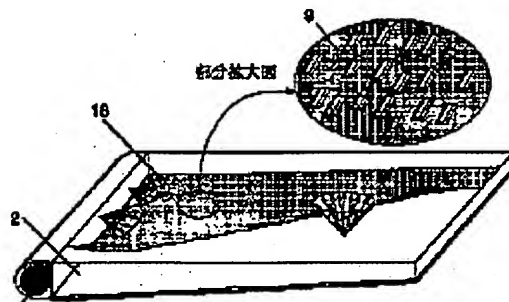
(C) 小凸部凹形状例10



(D) 小凸部凹形状例10の近似直線

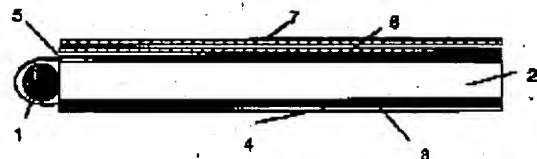
【図1】

図1



【図2】

図2



5. Claims 1, 2, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Cho et al., (Cho), KR 2002071358.

6. Cho discloses (abstract) and shows in THE Figure, a backlight device, comprising:

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- a plurality of point light sources (10) positioned on a base plate; and
- a light guide plate (12) having a first surface and a second surface parallel to the first surface, wherein the first surface has a plurality of convex structures having truncated cone shape corresponding to the point light sources, and a arc-shaped recess is formed therein.

Accordingly, claims 1, 2 and 4 are anticipated.

As to claim 8, it is clear from the Figure of Cho that an uneven pattern is formed on the second surface of the light guide plate.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 19, 21-23 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taniguchi as applied to claims 18, 20, 24 and 25 above.

9. As to claim 21-23, Taniguchi does not explicitly disclose the claimed shape of the convex structures. However, using a convex structure having a truncated cone shape or wherein the convex structure has a proximal end portion and a distal end portion, wherein the cross section of the proximal end portion is either circular or hexagonal and the cross section of the distal end portion circular, and the section of the distal end portion is smaller than the proximal end portion, is considered as routine skill in the art

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and thus would have been obvious to prevent unevenness of the brightness and to obtain uniform distribution of light.

As to claim 26, Taniguchi differs from the claimed invention because he does not explicitly disclose (in the same embodiment) that the second surface of the light guide plate is jagged or uneven. However, in Fig. 32F, Taniguchi shows a light guide plate wherein both surfaces of the light guide plate are uneven. Therefore, it would have at least been obvious to make the second surface of the light guide plate uneven to further compensate the unevenness of the brightness.

As to claim 19, using point light sources such as light emitting diodes that corresponds to the convex structures of the light guide plate is common and known in the art and thus would have been obvious for advantages such as reduced power consumption, thickness and weight.

10. Claim 3, 5-7, 9-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho as applied to claims 1, 2, 4 and 8 above.

11. As to claims 7, 10, 11, 13 and 16, using the backlight device in a liquid crystal display is considered as intended use and thus would have been obvious. Further, using a diffusing film to increase brightness is common and known in the art and thus would have been obvious.

As to claims 3 and 12, using point light sources such as light emitting diodes is common and known in the art and thus would have been obvious for advantages such as reduced power consumption, thickness and weight.

As to claim 5, 6, 14 and 15, using a convex structure that has a proximal end portion and a distal end portion, wherein the cross section of the proximal end portion is either circular or hexagonal and the cross section of the distal end portion circular, and the section of the distal end portion is smaller than the proximal end portion, is considered as routine skill in the art and thus would have been obvious to prevent unevenness of the brightness and to obtain uniform distribution of light.

As to claims 9 and 17, using material such as polycarbonate for the light guide plate is common and known in the art and thus would have been obvious to obtain a light guide plate that is excellent in transparent property, cost and molding easiness.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

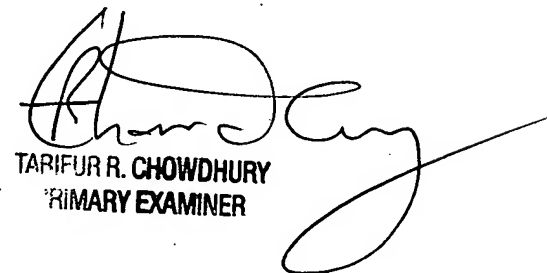
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R. Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC
July 05, 2005



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER